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AUG 12 1929

THE INSECT PEST SURVEY BULLETIN

A periodical review of entomological conditions throughout the United States
issued on the first of each month from March to December, inclusive.

Volume 9

August 1, 1929

Number 6

BUREAU OF ENTOMOLOGY
UNITED STATES
DEPARTMENT OF AGRICULTURE
AND
THE STATE ENTOMOLOGICAL
AGENCIES COOPERATING

INSECT PEST SURVEY BULLETIN

Vol. 9

August 1, 1929

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR JULY, 1929

The Mediterranean fruit fly was reported last month from southern Duval, eastern Levy, Hernando, and Escambia Counties, in addition to the counties reported in the last number of the Survey Bulletin. These are all contiguous to the counties already reported. No infested Florida fruit was reported as having been discovered at points outside of the State during the month.

The grasshopper situation reported in the last number of the Survey Bulletin has not materially changed. During the month rather intense though limited outbreaks developed in southern North Dakota and parts of South Dakota and Nebraska. Small outbreaks also developed over a wide area in central Texas. Further depredations by the eastern lubber grasshopper were reported from the Gulf region.

Wireworm trouble continues to be reported from practically the entire country extending from Maine to Washington, and southward to North Carolina and Missouri.

The pale western cutworm, after a subsidence of several years, is again appearing in outbreak numbers in North Dakota and severe depredations by other species of cutworms have been received from Maine, New York, and most of the States in the Mississippi Valley.

The Hessian fly survey for the State of Ohio has been completed and shows a decrease of average infestation for the area surveyed from 13.5 per cent in 1928 to 3.4 per cent this year. Although the Hessian fly was subnormally abundant in Missouri and Kansas this year there are decided indications of heavy infestation on early-planted wheat in these States this fall.

It is estimated that the wheat straw worm has reduced the Kansas wheat crop over 10,000,000 bushels.

The corn ear worm put in its appearance in noticeable numbers as far north as Massachusetts and South Dakota during the last week of this month.

The fall armyworm abundance reported in the last Survey Bulletin continued throughout this month with increasing severity of damage.

The armyworm is developing in very serious numbers over small areas from New York westward through Ohio to South Dakota and Iowa.

The chinch bug is appearing in southern Michigan this year. Outbreaks of this insect in Michigan are reported only at long intervals.

The rosy apple aphid subsided to negligible proportions throughout the New England and Middle Atlantic States, but is more prevalent than usual this year in Ohio.

The apple aphid is generally abundant throughout the entire northeastern section of the country extending from Maine to Virginia and westward to Ohio.

The oriental fruit moth continues to be causing considerable alarm throughout the New England, Middle Atlantic, Southern, and East Central States.

The plum curculio continues to be the most serious single fruit pest over practically the entire country east of the Rocky Mountains.

The Colorado potato beetle is more prevalent than it has been for several years in the Middle Atlantic, East Central, and West Central States.

The Mexican bean beetle is now well spread over Connecticut, most of Pennsylvania, and Southern New York State. In Alabama and Mississippi its damage is much more serious than it has been in several years.

The pickle worm did very serious damage to all cucurbitaceous plants in Mississippi and Alabama.

Three moths new to our North American fauna are recorded in this number of the Bulletin. They are Chrysoclista linneella Clerck on linden from near New York City, Batodes angustionana Haw. from yew in Victoria, B. C., and Cnephasia longana Haw. reared from strawberry fruit in Oregon.

OUTSTANDING ENTOMOLOGICAL FEATURES FOR CANADA FOR JULY, 1929.

The pale western cutworm has been destructive over a large area in south central and southwestern Saskatchewan. The infestation appears to be the most serious yet recorded in the eastern part of the range of this species. The very dry conditions of May and June presage continued or increased trouble next year.

The bertha armyworm, Barathra configurata Walk., is infesting a variety of field and garden crops and weeds in southeastern British Columbia. There was a general infestation of this species over the interior of British Columbia last year.

Scattered outbreaks of the red-backed cutworm, Euxoa ochrogaster Guen., have been recorded from southern sections of Manitoba, Saskatchewan, and Alberta. An unusual absence of cutworm injury this spring is recorded from the Okanagan Valley, British Columbia. In New Brunswick the greasy cutworm, Agrotis ypsilon Rott., attacked potatoes, sunflowers, turnips, and corn, on farms in New Brunswick, along the St. John River, in York and Sunbury Counties, early in July.

The Colorado potato beetle is reported as more abundant than usual in the Annapolis Valley, Nova Scotia, and in the Ottawa district, Ontario. In Manitoba it is said to be scarcer than usual and has been reported in destructive numbers only in a few places.

In southwestern Alberta and southeastern British Columbia, the onion maggot, Hylemyia antiqua Meig., and the cabbage maggot, H. brassicae Bouche, are reported as much less abundant and destructive than in 1928. The onion maggot is also reported as less abundant than in previous years in the Ottawa district, Ontario.

Up to mid-July there had been much less damage by insects in Nova Scotia orchards than for a considerable number of years.

A severe infestation of the European apple sucker, Psyllia mali Schmid., has been found a few miles east and a few miles west of Annapolis, Nova Scotia. This record indicates the most westerly point where appreciable numbers are found.

The apple curculio, Tachypterellus quadrigibbus Say, has caused severe damage to pears in certain orchards in the Salmon Arm district, British Columbia. This insect had not previously been recorded as a fruit pest in this section. The apple curculio also has been particularly numerous this year in orchards in the province of Quebec.

The plum curculio has caused more injury in Quebec apple orchards than in the previous several years.

Considerable numbers of first-generation larvae of the apple and thorn skeletonizer have been noticed in the Annapolis district, Nova Scotia, and an outbreak is anticipated when the second generation appears.

Another heavy infestation of the hemlock looper is indicated in the Trinity Bay district on the north shore of the St. Lawrence, Quebec, during this season. A large area of balsam heavily defoliated last year is expected to die in the Manikugan River area. The outbreak of this species is in its second year at Indian River and Burrard Inlet, British Columbia, and probably much of the hemlock will be killed. In addition

to hemlock many other coniferous trees and deciduous plants are affected.

Severe outbreaks of the satin moth and tent caterpillars have resulted in the total defoliation of hundreds of acres of brush and cottonwood stands in the western half of the lower Fraser Valley, British Columbia. In the Lloydminster district, Saskatchewan, the forest tent caterpillar caused probably total defoliation of aspen poplars. The outbreak appears to be extending eastward each year and parasites are gradually checking the tent caterpillars in older infestations.

In the Barkerville and Stanley region of British Columbia, the infestation of the spruce budworm has been retarded by cold weather and rain.

The tussock moth, Hemerocampa pseudotsugata McD., which in 1928 was reported around a ranch house in the B. X. district, 5 miles north-east of Vernon, British Columbia, has spread considerably and is now attacking areas of Douglas fir on the mountain side.

Adults of the fall webworm are unusually abundant in the lower Fraser Valley, British Columbia, and a severe outbreak of this defoliator is in prospect later in the year.

Reports from Nova Scotia, Ontario, Manitoba, Saskatchewan, and British Columbia indicate that mosquitoes are much less troublesome in the Dominion this year than in 1928. This is probably largely due to sub-normal rainfall in early summer.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- North Carolina Z. F. Metcalf (July 31): Very abundant over the State, especially on tobacco.
- North Dakota J. A. Munro (July 22): Mr. R. Shotwell, in a letter dated July 16, reported that grasshoppers were very late in putting in their appearance in the vicinities of Dickinson and Beach this year, the peak of hatching being reached the first week in July. He states that they are very thick along the edges of wheat and flax fields but that their prevalence will not mean a wholesale destruction of crops, although it will probably mean a loss of from 10 to 50 per cent in some places. Mr. Bruce, at Sheldon, reports that Melanoplus bivittatus Say, M. femur-rubrum DeG., and M. atlanis Riley were present in outbreak numbers in his vicinity.
- South Dakota E. C. Severin (July 20): Reports of damage to alfalfa, chiefly, are just beginning to come in, especially from Lyman, Brule, and Pennington Counties.
- Nebraska M. E. Swenk (June 15-July 15): Grasshoppers continued to be troublesome during the period here covered. They had hatched out plentifully in Deuel County and by June 19 were causing many complaints. During the second week in July many growers in Lancaster County, especially north and east of Lincoln, complained of injury to vegetables and flower gardens.
- Kansas J. W. McColloch (July 28): Injury is being done to garden crops at Penokee.
- Texas F. L. Thomas and assistants (June 26): Grasshoppers have been reported from San Jacinto, Milam, Bosque, Jones, Archer, McCullough, Kendall, and Tom Green Counties recently.
- Wyoming H. L. Sweetman (July 17): Moderately abundant in unirrigated crops.
- New Mexico J. R. Eyer (June 28): A severe outbreak of grasshoppers has been reported by G. A. Trotter at Zuni.

EASTERN LUBBER GRASSHOPPER (Romalea microptera Beauv.)

- Alabama H. P. Loding (July 15): This insect has been and is still doing great damage to vegetation near Mobile. I have rarely seen it more plentiful.
- Louisiana W. E. Hinds (July 28): The eastern lubber grasshopper is moderately abundant in the vicinity of Baton Rouge.

FIELD CRICKET (Gryllus assimilis Fab.)

North Dakota J. A. Munro (July 22): The field cricket appears to be on the increase again at Fargo.

Wyoming H. L. Sweetman (July 15): There is a local outbreak on alfalfa and small grains in Niobrara County.

WIREWORMS (Elateridae)

Maine C. R. Phipps (July 20): Agriotes mancus Say is moderately abundant on potato seed pieces and plants, also on cabbage and corn, in Cumberland, Knox, Kennebec, Androscoggin, Penobscot, and Somerset Counties.

Connecticut B. H. Walden (July 6): Melanotus sp., probably communis Gyll., is attacking corn in North Haven in greater numbers than usual.

New York Weekly News Letter, N. Y. State College of Agr., July : The wheat wireworm, Agriotes mancus Say, is seriously damaging cabbage in Ontario County. (abstract J. A. H.)

North Carolina Z. P. Metcalf (July 21): Wireworms are moderately abundant over the State, especially in tobacco fields.

Indiana J. J. Davis (July 22): Wireworms are serious in corn at Shoals; reported June 29.

Illinois W. P. Flint (July 20): Wireworms are very abundant.

Nebraska M. H. Swenk (July 19): Reports of heavy infestations on corn were received up to about July 1. These later reports included Melanotus cribulosus Lec. as well as M. fissilis Say.

South Dakota H. C. Severin (July 20): Moderately abundant in southeastern South Dakota.

Missouri L. Haseman (July 22): Corn suffered severe damage earlier in the season.

Idaho C. Wakeland (July 24): Very serious injury to corn, potatoes, grain and truck crops in southwestern Idaho has been reported.

WHITE GRUBS (Phyllophaga spp.)

Ohio E. W. Mendenhall (July 13): The attack on strawberries at New Carlisle and Lithopolis is very severe.

Missouri L. Haseman (July 22): White grubs are very abundant; cultivated crops are not seriously damaged yet, however.

Nebraska

M. H. Swenk (June 15-July 15): Adults continued abundant during the period here covered; the grubs are scarce.

Alabama

H. P. Loding (July 15): Fewer complaints have been received than usual. P. micans Knoch did a little damage to young pecan growth early in March.

Louisiana

H. Baker (June 28): Word came on April 9 that there was a serious outbreak of June bugs at Elizabeth. I arrived in Elizabeth April 11 and remained until the 13th, and during that time very few bugs were seen. However, a considerable number of young pecan trees were seriously defoliated, the work having been done on the three or four nights previously, when great numbers had been observed feeding. Little damage had been done in the main orchard planting, though there was considerable evidence of the presence of the June bugs. Specimens were identified by E. A. Chapin as follows: P. arkansana Schaef., P. praetermissa Horn, P. micans Knoch.

I was told that this pecan orchard, 1,100 acres, was planted in 1923 on cutover pine land not yet fully cleared and has been defoliated by June bugs each year beginning with 1926, and up to this year with the result that it is far behind the size that it should have reached for its age. The manager stated that last year, 1928, a portion of the orchard was defoliated three times and practically all of it at least twice. This year the infestation which started just prior to my trip was abruptly stopped, whether because of cooler weather which came just at that time and lasted for a considerable time or because of a short brood this year, I do not know, but at least the orchard was not defoliated save for the few trees about the house of the manager.

Considerable damage was also caused to young pecan trees in the vicinity of Shreveport. They were most plentiful during the period from April 7th to 20th, and reappeared again for one night, May 6th, in considerable numbers. Species were determined by Mr. Chapin as follows: P. prunina Lec., P. ulkei Smith, P. tristis Fab. The damage in all cases was caused by the adults.

CUTWORMS (Noctuidae)

Maine

C. R. Phipps (July 20): Agrotis ypsilon Rott. is very abundant on corn, potatoes, and cabbage.

New York

Weekly News Letter, N. Y. State College of Agr., July: Cutworms have been unusually severe in Onondaga, Ontario, Suffolk, Genesee, Orleans, and Monroe Counties, attacking various crops, especially corn and cabbage. (abstract J. A. E.)

Minnesota

A. G. Ruggles and assistants (July): Cutworms continued seriously destructive throughout the earlier part of the month. Considerable damage to corn was reported from practically all

of the southern part of the State, while damage to truck crops was even more extensive.

North Dakota

C. N. Ainslie (July 1): Porosagrotis orthogonia Morr. is again multiplying after a subsidence of several years. Possibly the steady cold of the past winter has contributed to its safe hibernation. Wheat fields of hundreds of acres have been plowed up this spring after the cutworms had taken the grain. One 100-acre field of wheat was taken and the worms were taking the flax that had been sown in place of the wheat. Corn has been replanted in many cases. The insect seems to be in great abundance in spots.

Nebraska

M. H. Swenk (June 15-July 15): Depredations in northeastern Nebraska, in an area including the Elkhorn Valley counties from Cuming to Holt Counties, continued until the end of June, although in other parts of the State injury ended early in June. In Elkhorn Valley corn was cut off an inch or so under the ground. The cutworms are neither the glassy nor the pale western species, which indicates a third species of subterranean cutting habits. Similar injury was reported from Cedar County on June 21, but had largely stopped in that vicinity by June 25.

Arkansas

D. Isley (July 1): Very abundant in the valleys of the Mississippi and St. Francis Rivers, from Mississippi County south to Phillips County.

Montana

W. B. Mabey (July 10): Euxoa ochrogaster Guen. is moderately abundant in central Montana.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Ohio

T. H. Parks (July 25): The annual wheat-insect survey has been completed and the Hessian fly found to be much less prevalent than usual. The only county found to have a serious infestation is Butler, which now has 35 per cent of the straws infested. The average infestation for the 34 counties surveyed is 3.4 per cent compared with 13.5 per cent for the State last year. This is a great reduction for most sections. In some north-central and northwestern counties not a single specimen could be found during the day's search when from 900 to 1,000 straws were carefully examined.

The following are the percentages of straws found infested in the counties surveyed:

Auglaize	0.0	Knox	1.0
Butler	35.0	Logan	0.0
Champaign	0.0	Madison	1.6
Clermont	8.7	Medina	1.9
Clinton	5.2	Miami	.5
Columbiana	9.6	Muskingum	1.2
Crawford	2.2	Ottawa	1.0
Darke	1.3	Pickaway	3.5
Defiance	0.0	Richland	1.1
Delaware	0.0	Ross	2.5
Fulton	1.3	Sandusky	1.3
Hamilton	7.4	Seneca	1.3
Hancock	1.0	Stark	4.3
Henry	1.0	Tuscarawas	2.1
Highland	7.7	Union	0.0
Holmes	1.2	Warren	8.6
Hyron	0.0	Wayne	2.3

Average 3.4

Kansas

J. W. McCulloch (July 12): Kansas Crop Report (released July 11). "The prospect declined considerably over June 1, and part of the decline is attributed to wheat straw worm and Hessian fly." Personally, I think at least 50 per cent of the decline is due to these two insects. (July 22): A general light infestation is to be found over most of the wheat belt of Kansas. Damage to the 1929 crop was generally light, but there are enough flax-seed present to indicate an impending outbreak.

WHEAT MIDGE (Contarinia tritici Kby.)

Ohio

T. H. Parks (July 25): Not a single specimen was observed by the writer during the annual wheat survey.

WHEAT STRAW WORM (Harmolita grandis Riley)

Kansas

J. W. McCulloch (July 12): Kansas Crop Report (released July 11). "The prospect declined considerably over June 1, and part of the decline is attributed to the wheat straw worm and the Hessian fly." Personally, I think at least 50 per cent of the decline is due to these two insects. In fact, if all the facts were known the wheat straw worm did more damage than it has been given credit for. (July 22): The wheat straw worm has taken a heavy toll of the 1929 Kansas wheat crop. Estimates of loss vary from 10,000,000 to 15,000,000 bushels. Practically all of the State is infested.

A DAGGER MOTH (Acronyctinae)

Pennsylvania

T. L. Guyton (June 26): Report of damage to wheat and oats in Lancaster County by larvae was made June 20. (Determined by C. Heinrich.)

CORN

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

- New Hampshire P. R. Lowry (July 22): Larvae in the fifth instar found in a field at Hudson on July 18.
- Pennsylvania T. L. Guyton (July 20): Adults are emerging in Erie County.
- Ohio T. H. Parks (July 20): The first sweet corn grown in Lucas County was trucked to Detroit market today. It has a few larvae in it, but not very serious yet. More damage is expected to corn that will be harvested in two weeks. Some early sweet corn fields now have about 50 per cent of the stalks with feeding marks on the leaves and larvae from very young to half-grown in the tassels and tops of the plants. A few tassels are already broken. Growers feel that the damage will be somewhat heavier than last year. Late-planted field corn shows no infestation, but in May-planted fields some infestation is visible.
- Guatemala Monthly News Letter, Bureau of Entomology, No. 182, June: Carl Heinrich, specialist in Lepidoptera of the Taxonomic Unit of the Bureau, who left Washington on April 9 to investigate the occurrence of the European corn borer in Guatemala, as reported (Informe del Entom. Oficial, Bol. Agr. Guat., 6 p. 297, 1927), returned June 19. Mr. Heinrich was fortunate enough to be able to examine corn growing in the identical field in the neighborhood of Antigua, from which P. nubilalis was reported. No European corn borer was found, but there was an injurious abundance of the Central American corn borer Diatraea lineolata Wlk. Adult moths were reared from this material and accurately determined as this species.

STALK BORER (Papaipema nebris nitela Guen.)

- Connecticut W. E. Britton (July 22): Seems to be more abundant than usual in New Haven, Wallingford, Hamden, Orange, Fairfield, and Bethlehem, where it is attacking corn, dahlia, and hollyhock.
- New York C. R. Crosby (June 27): In one or two fields of tomatoes in Nassau County 20 per cent of the plants were killed.
- Virginia W. J. Schoene (July 24): We are receiving complaints from all sections of the State. In some cornfields the injury is said to be conspicuous.
- Ohio T. H. Parks (July 25): Complaints of damage to corn, hollyhocks, tomatoes, peppers, and potatoes are being received from many sections of the State.

- Ohio E. W. Mendenhall (July 19): Field corn and sweet corn in the vicinity of Bremen, Fairfield County, is badly infested.
- Indiana J. J. Davis (July 22): The stalk borer has been quite prevalent, reports coming from many sections of the State with information that various host plants are being attacked, the principal one of which is corn.
- Illinois W. P. Flint (July 22): The damage is certainly above that of normal years.
- Michigan R. H. Pettit (July 12): Reports received daily from all parts of the State.
- North Dakota J. A. Munro (July 22): Moderately abundant on corn, potatoes, tomatoes, dahlia, and other plants in eastern North Dakota.
- South Dakota H. C. Severin (July 20): Specimens are received every day, usually with the fear that it is the European corn borer. Most of the reports come from the eastern part of the State, where it attacks corn, potato, tomato, and dahlia.
- Missouri L. Haseman (July 22): Nearly mature worms are very abundant.
- Nebraska M. H. Swenk (June 15-July 15): Several reports of young corn plants being attacked were received from Sarpy and Saunders Counties between June 24 and July 8. A Dawson County correspondent reported it as attacking dahlia plants during the first week in July.
- Kansas J. W. McColloch (July 1): Reports of injury to corn were received from Agra on June 25 and from Augusta on June 19, and injury to tomatoes was reported from Cottonwood Falls June 22.
- CORN EAR WORM (Heliothis obsoleta Fab.)
- Massachusetts A. I. Bourne (July 25): Reports of moderate abundance to very abundant have been received.
- Rhode Island A. E. Stene (July 19): Moderately abundant to very abundant according to the locality from which reported.
- North Carolina Z. P. Metcalf (July 21): Very abundant on corn and tobacco generally over the State.
- Illinois W. P. Flint (July 22): Moderately abundant.
- Nebraska M. H. Swenk (July 19): Moderately abundant.
- Louisiana T. E. Hinds (July 23): The corn earworm is very abundant generally.

Mississippi

R. W. Harned (July 23): Complaints as a pest of corn and tomatoes have been received from all sections of the State during the past month. In some cases serious injury was reported.

FALL ARMYWORM (Lophyama frugiperda S. & A.)

Georgia

J. H. Larrimer (July 5): The following was taken from a letter received from O. I. Snapp, dated June 26. "At the request of several farmers in the eastern part of Peach County, I made a trip with the local county agent yesterday to investigate an infestation of worms attacking young corn. I found a very heavy infestation of the fall armyworm in the eastern part of Peach County and in the northern part of Houston County. In one field every corn plant had been ruined. This corn had been planted in a field where wheat had been turned under after hail and wind damage.

O. I. Snapp (June 30): This insect has now shown up in Macon County and is doing much damage to cowpeas and young corn, especially near Montezuma.

Alabama

H. P. Loding (July 15): The fall armyworm has destroyed many late-planted gladioli in Mobile. I barely saved mine by treatment.

Louisiana

J. E. Hinds (July 23): Still abundant and damaging grass, corn, and cane.

Mississippi

R. W. Harned (July 23): Throughout the latter part of June and all of July, complaints have been received of injury to corn. Specimens have been received from Yazoo, Lauderdale, Kemper, Union, DeFlore, Sharkey, Jefferson, Chickasaw, Bolivar, Forrest, Lincoln, Copiah, and Simpson Counties. The correspondent from Lincoln County stated that these insects had almost completely destroyed a 4-acre field of corn by July 2.

ARMYWORM (Cirphis unipuncta Haw.)

New York

C. R. Crosby (June 27): A severe outbreak on hay and corn in certain localities in Suffolk County has been reported.

Ohio

T. H. Parks (July): A wire from the county agent of Miami County on June 15 stated that caterpillars were devouring timothy on a farm in his county. Heads were being eaten off and the hay being greatly damaged. The place was visited the same day by M. P. Jones, who found the crop being harvested to save it. Specimens were determined as the true armyworm. Report was received from Marion County that these worms destroyed the heads in a field of timothy there. This is the first serious outbreak in Ohio since 1918.

- North Dakota H. C. Severin (July 20): Armyworms are now leaving small grains and going into corn, as reported from Davison, Hanson, and McCook Counties.
- Iowa C. J. Drake (July 17): Telegram - "Serious armyworm outbreak in northwestern Iowa."
- C. N. Ainslie (July 23): Several local attacks are in progress in Woodbury County. The origin of the infestation seems to have been among green oats, where damage has been done. The worms are now nearly grown and are moving into adjoining cornfields that will suffer some loss. Several species of tachinids are busy laying eggs on the larvae and Apanteles are also present.
- SALT-MARSH CATERPILLAR (Estigmene acrea Drury)
- Maine C. R. Phipps (July 20): Unusually abundant on corn and peas
- CHINCH BUG (Blissus leucopterus Say)
- Michigan R. H. Pettit (July 20): The first report of injury came in today. It occurred in Onsted in Lenawee County. Only at intervals of several years does the chinch bug reach Michigan in injurious numbers. This seems to be one of the years.
- SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)
- Maryland E. N. Cory (July 24): Reported from Harford and Talbot Counties in June and early in July as attacking corn.
- North Carolina Z. P. Metcalf (July 21): Very abundant.
- Missouri L. Haseman (July 22): Very abundant; now pupating.
- Louisiana W. E. Hinds (July 23): Very abundant.
- GRAPE COLASPIS (Colaspis brunnea Fab.)
- Indiana J. J. Davis (July 22): Damaging corn at Salem, reported July 13. Beetles reported abundant and feeding on corn at New Albany and English, July 8 and 12 respectively.
- SOUTHERN CORN STALK BORER (Diatraea zeacolella Dyar)
- Maryland E. N. Cory (July 24): Reported from St. Mary's County July 17.
- Georgia O. I. Snapp (June 29): A heavy infestation was found today in a cornfield near Fort Valley. (July 18): Damage in a number of cornfields around Fort Valley has been reported since above report.

Indiana

J. J. Davis (July 2): I am sending larvae reported as destroying a 20-acre field of corn at Howe. (determined by C. Heinrich as D. zeacololla.)

CORN SILK BEETLE (Luperodes varicornis Lec.)

Mississippi

R. W. Harned (July 23): Beetles have injured corn and cotton in several sections of the State during the past month. A correspondent at Bucketunna, Wayne County, sent specimens on June 26. He wrote as follows: "These bugs are eating the leaves and squares of cotton. They are also in corn next to this field of cotton, eating the silk and tassels. Other localities from which these beetles have been received are Steens, Hattiesburg, Braxton, Waterford, and Enid.

SOY BEANS

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Virginia

P. J. Chapman (July 22): A 10-acre field of soy beans is so heavily infested with C. trifurcata and Diabrotica duodecimpunctata that the grower is cutting the crop prematurely.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Mississippi

R. W. Harned (July 23): On July 2 specimens were sent from Pascagoula, where they were attacking soy beans. Fully 90 per cent of the plants in one field had been injured. Specimens were also found injuring bean plants at Columbus, July 12.

CLOVER AND ALFALFA

ALFALFA WEEVIL (Phytonomus posticus Gyll.)

Wyoming

H. L. Sweetman (July 17): The alfalfa weevil is moderately abundant. No evidence of old infestation at Torrington was found. Slight injury at Casper.

Idaho

C. Wakeland (July 24): Alfalfa weevils are unusually serious in southwestern and southern Idaho. In a small area in Madison County in the upper Snake River Valley spraying was resorted to early in July.

A LEAF BEETLE (Antipus laticlavata Forst.)

Mississippi

R. W. Harned (July 23): Specimens were received on July 2 from Summit, where they were reported as abundant on clover. However, only slight injury had been noticed.

F R U I T I N S E C T S

JAPANESE BEETLE (Poecilus japonica Merm.)

Connecticut

W. E. Britton (July 24): Found only at Bridgeport, where it is moderately abundant.

Weekly News Letter, Bureau of Entomology, No. 182, June: Four large shipments of parasites of the Japanese beetle have been received this month from T. R. Gardner, of the field laboratory at Yokohama, Japan. Two of these shipments consisted of beetle larvae parasitized by the dexiids, Proctos siberita Fab. and Dexia ventralis Aldrich. Two other shipments consisted of Tiphia vernalis Rohw. The shipments this year arrived in remarkably fine condition.

A SCARABAEID BEETLE (Strigoderma arboricola Fab.)

Indiana

J. J. Davis (July 22): Beetles were reported June 24 as abundant in an orchard at Michigan City; no statement of damage.

COTTON LEAF WORM (Alabama arallacea Hbn.)

Louisiana

W. E. Hinds (July 17): Telegram - "Report first authentic cotton leaf worms in LaFayette Parish today. Situation indicates widespread and serious stripping may occur soon. I believe Texas and Mississippi also report worms."

This is an index to the possible occurrence of moths in destructive numbers in the fruit districts in the northern States early in September (J. A. H.).

A LACE BUG (Corythucha cydonia Fitch)

Mississippi

R. W. Harned (July 23): A correspondent at Pickens sent on June 27 specimens with the report that they were injuring one of his fruit trees.

APPLE

APHIDS (Aphidae)

New York

C. R. Crosby (July): Fruit aphids, especially the rosy aphid, are very bad and the green aphid is becoming serious.

Minnesota

A. G. Ruggles and assistants (July): Aphids were quite generally abundant on fruit trees, particularly plum.

APPLE APHID (Aphis pomi DeG.)

Maine

C. R. Phipps (July 20): Moderately abundant on apple in Monmouth County and elsewhere.

- Massachusetts A. I. Bourns (July 25): Moderately abundant to very abundant. There are some bad infestations, especially on young trees. This was late in developing.
- Connecticut W. E. Britton (July 24): Moderately abundant.
- New York C. R. Crosby and assistants (July): Although numerous enough in the Hudson River Valley in Schenectady, Albany, Greene, and Columbia Counties to be causing some apprehension among the growers, and fairly well scattered over the southeastern part of the State, this insect as yet has not done any considerable damage. From the 15th of the month reports of similar conditions were being received from the western part of the State.
- Virginia W. J. Schoene (July 24): Very conspicuous in some orchards. Injury in Frederick County was so pronounced that some growers used nicotine. It is believed that the insect is most numerous in well-cared-for orchards.
- Ohio T. H. Parks (July 25): An outbreak has been upon us this summer. The insect was most numerous from the middle of June until the middle of July. It has now become greatly reduced in numbers and in some orchards has almost disappeared.

ROSY APPLE APHID (Anuraphis roseus Baker)

- New York C. R. Crosby and assistants (July): This insect is extremely scarce throughout practically the entire State.
- Connecticut W. E. Britton (July 24): Moderately abundant.
- Virginia P. J. Chapman (July 24): Moderately abundant in home orchards.
- Ohio T. H. Parks (July 25): More damage has developed this year than usual.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

- Ohio E. J. Mendenhall (July 18): This insect is quite noticeable in nurseries in Fairfield County.
- Illinois W. P. Flint (July 22): Reported as very abundant in many of the young orchards in central and west-central Illinois.

CODLING MOTH (Carpocapsa pomonella L.)

- New York C. R. Crosby and assistants (July): Early in the month side-worm injury was quite prevalent in the lower Hudson River Valley and by the middle of the month this type of injury was becoming noticeable in western New York.

- Virginia P. J. Chapman (July 24): Moderately abundant in home orchards around Norfolk.
- Pennsylvania T. L. Guyton (July 20): Moderately abundant in commercial orchards around Waynesboro.
- Ohio T. H. Parks (July 25): Apple scab and the codling moth have claimed all of the fruit in unsprayed orchards. The spray for the second brood was advised for the week of July 15th at Columbus. Emergence of this brood commenced about July 10th and has been increasing since. The insect is under control in the orchards where the regular spraying schedule has been followed.
- Illinois E. P. Flint (July 22): Injury showed on a little more than the normal per cent of apples at the end of the first brood. Second-brood larvae were entering the fruit at Carbondale July 8. They have been delayed by cool weather. The peak of hatch in central Illinois will not occur before July 25th and a few days earlier in the southern part.
- South Dakota H. C. Severin (July 23): Moderately abundant in the western third of the State.
- Missouri L. Haseman (July 22): Very abundant; peak of second-brood moths occurred about July 18.
- Nebraska M. H. Swenk (June 15-July 15): The first moths of the first brood were noted at Lincoln on June 30.
- Arkansas D. Isley (July 1): Less abundant than usual.
- Wyoming H. L. Sweetman (July 17): The codling moth is scarce.
- New Mexico J. R. Eyer (July 16): This insect is very abundant. The second generation is emerging in great numbers.
- Idaho C. Wakeland (July 24): Emergence of the second brood is extremely light and injury should be almost negligible.

EASTERN TENT CATERPILLAR (Molacosoma americana Fab.)

- Maine C. R. Phipps (July 20): Very abundant; moths caught in light traps at Orono early in July.
- Rhode Island A. E. Stone (June 26): Caterpillars were almost entirely absent except in one place in the southern part of the State.
- Ohio E. L. Mondenhall (July 20): Abundant in apple orchards in southwestern Ohio.

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

Ohio E. I. Mendenhall (July 19): Slight damage has been observed in an apple orchard near Lancaster.

Missouri L. Haseman (July 22): Very abundant; caterpillars are half-grown.

RED-HUMPED CATERPILLAR (Schizura concinna S. & A.)

Missouri L. Haseman (July 22): Very abundant; caterpillars range from one-third to two-thirds grown.

EYE-SPOTTED BUDMOTH (Spilonota ocellana Schiff.)

Washington W. W. Baker (June 25): Larvae were very prevalent in the Puyallup Valley this spring on apple, pear, and some other fruit trees.

FRUIT TREE LEAF ROLLER (Archips argyrospila Wlk.)

New York C. R. Crosby and assistants (July): Although reported from Orange and Ulster Counties in southeastern New York, in the upper Hudson River Valley, and western New York, this insect is doing but little damage this year.

Nebraska M. H. Swenk (June 15-July 15): Troublesome in Box Butte County on roses, plums, choke cherries, currants, and gooseberries during the third week in June.

LEAFHOPPERS (Cicadellidae)

Maine C. R. Phipps (July 20): Apple leafhoppers (Emponasca mali LeB., E. rosae L., and E. unicolor Gill.) are moderately abundant in Cumberland County.

Rhode Island A. E. Stone (June 26): Apple leafhoppers are showing up in considerable numbers in the northern section of the State and some of the larger orchardists are making vigorous efforts to suppress them.

North Carolina Z. P. Metcalf (July 21): Very abundant in the mountains.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

Maine C. R. Phipps (July 20): Flies were emerging in Kennebec County July 1, and in Penobscot County July 5.

Massachusetts A. I. Bourne (July 25): Comparatively few flies noted to date. Too early to forecast accurately, but indications lead to hope that it will not be so seriously abundant as for the last three or four years.

- New York C. R. Crosby and assistants (July): The first flies to be observed this year were seen in Orange and Albany Counties on June 23. By the end of the first week in July this insect had reached the peak and by July 15 the emergence was pretty well completed and flies were decreasing in numbers throughout the lower Hudson River Valley.
- Michigan R. H. Pettit (July 12): The apple maggot emerged in Ingham County July 5, at Grand Rapids July 8, and at Hart in Oceana County July 11. We are expecting it out in a few days in the Traverse district. These dates are determined by observations in various parts of the State and warnings are sent to growers.
- CRANBERRY ROOT WORM (Rhabdopterus picipes Oliv.)
- New York C. R. Crosby and assistants (July): This insect has been reported from Wayne, Monroe, and Ontario Counties in rather destructive numbers on apples.
- ROSE LEAF BEETLE (Nodonota puncticollis Say)
- New York C. R. Crosby and assistants (July): This insect seems to be quite prevalent in the lower Hudson River Valley in Orange, Ulster, and Columbia Counties, where it is doing considerable damage to apples.
- EUROPEAN RED MITE (Paratetranychus pilosus Can. & Fanz.)
- Connecticut P. Garman (July 24): Abundant in some orchards in New Haven and Hartford Counties, where it is attacking apples. If anything, less abundant than usual.
- New York C. R. Crosby and assistants (July): This insect was generally below normal throughout the lower Hudson River Valley, but by the end of the month was increasing in numbers.
- OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)
- South Dakota H. C. Severin (July 20): This insect is moderately abundant in the eastern part of the State.
- Nebraska M. H. Swenk (June 15-July 15): In addition to those reports of infestations of apple orchards mentioned in report of May 13, during the period here covered similar reports have been received from Knox and Colfax Counties, where this scale seems to be unusually troublesome this year.

PEAR

PEAR PSYLLA (Psyllia pyricola Forst.)

- Connecticut P. Garman (July 24): This insect is reported in average

abundance but less abundant than last year in New Haven and Fairfield Counties.

New York

C. R. Crosby and assistants (July): The pear psylla is showing up in threatening numbers in Ulster and Orange Counties, and is also serious in Dutchess and Senessee Counties. By the middle of the month the situation looked rather bad in Ontario and Wayne Counties and also in the Niagara district.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

Indiana

J. J. Davis (July 22): Reported from Mishawaka on July 5.

PEAR MIDGE (Contarinia pyrivora Riley)

New York

C. R. Crosby and assistants (July): The pear midge was reported as very serious throughout Columbia County and damage was being done in some orchards in Ulster County.

PEAR SLUG (Eriocampoides limacina Retz.)

Ohio

E. W. Mendenhall (July 3): The pear slug has been quite abundant in pear stock in one of the nurseries in Montgomery County this spring.

Nebraska

H. E. Swenk (June 15-July 15): From July 4 to the 15, there have been many reports of serious foliage injury to cherry and pear trees in eastern Nebraska, west to Buffalo County.

PEACH

PEACH BORER (Agrobia exitiosa Say)

Ohio

E. W. Mendenhall (July 10): Peach trees in small orchards and in home orchards in southwestern Ohio are considerably damaged.

Illinois

W. P. Flint (July 22): Moderately abundant; emergence began the first week in July at Carbondale.

North Carolina

R. W. Leiby (July 22): Gummy exudations are common in commercial orchards. Trees have not been gassed for two years.

ORIENTAL FRUIT MOTHE (Laspeyresia molesta Busck)

Connecticut

P. Garman (July 24): This insect is more abundant than usual in places in Hartford and New Haven Counties. Parasitism in most heavily infested orchards is under 20 per cent.

W. E. Britton (July 24): Moderately abundant generally, but very abundant in some orchards.

- Rhode Island A. E. Stone (June 26): Peaches in several orchards examined are badly infested. There is likely to be considerable trouble again this year, probably more than last.
- New York C. R. Crosby and assistants (July): Oriental fruit moth injury began to show up in Orange County during the last week in June and by the first week in July was observed in Dutchess, Ulster, and Chautauqua Counties and by the middle of the month in Niagara County.
- Maryland E. N. Cory (July 24): Moderately abundant; varies in different localities.
- Virginia W. H. Schoene (July 24): Peaches in the Crozet and Roanoke sections are being damaged. It is reported that 20 per cent of the varieties now being harvested in the Roanoke section have been damaged.
- Pennsylvania T. L. Guyton (July 20): Very abundant. Twig injury to peach trees scattered over all the orchards where the insect is known to occur.
- North Carolina Z. P. Metcalf (July 21): This insect is very abundant over the whole State.
- Georgia O. I. Snapp (July 19): Infestations have become heavier during the last month near Fort Valley, although little damage has been done.
- Ohio E. W. Mendenhall (July 2): Considerable damage to peach trees in Miami County and apparently in southwestern Ohio is being noticed. Larvae were found in plum also in this section. (July 18): Very bad on peach in Fairfield County; the dying back of twigs is quite noticeable.
- T. H. Parks (July 25): The oriental fruit moth is more abundant than last year in most counties. Peaches arriving on the market are wormy and trees show much twig injury. Ottawa County, where the insect was very scarce last year, has no fruit this year, but the insect is common in the twigs there now, according to Mr. Stearns of the Ohio Experiment Station.
- Indiana J. J. Davis (July 22): The oriental fruit moth is increasing in former infested areas and in addition to previous records it has been found at Bedford and Terre Haute, where it was very abundant in peach twigs in a back yard.
- Illinois W. P. Flint (July 22): Moths of the third brood began emerging July 27 in southern Illinois. The infestation is light. There has been a general increase of twig infestation over last year in the peach sections which had practically no in-

jury in 1928. In the original infested territory, Pulaski County, there has been no increase over last year as yet.

Michigan R. H. Pettit (July 12): Second-generation larvae have appeared in Washtenaw County.

Mississippi R. W. Harned (July 23): Peach twigs that have evidently been injured by the larvae have been received during the past month from Lauderdale, Quitman, Hinds, Chickasaw, Clay, Pike, Bolivar, and Prentiss Counties.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Maine C. R. Phipps (July 20): Moderately abundant on apple throughout the fruit districts.

New Hampshire P. R. Lowry (July 22): Severe injury to apples has been reported from several localities in central and southeastern New Hampshire.

Massachusetts A. I. Bourne (July 25): Moderately abundant to very abundant. Fully as severe generally over the State as ever.

Connecticut W. E. Britton (July 24): Moderately abundant.

Rhode Island A. E. Stene (June 26): Continues to raise havoc with the fruit in many sections of the State and small growers especially are finding it a difficult pest to control.

New York C. R. Crosby and assistants (July): The plum curculio is quite prevalent and in many cases unusually destructive in the lower Hudson River Valley, damage being very noticeable on cherry. In the Niagara district peaches seemed to have been more seriously damaged than in many years.

Pennsylvania T. L. Guyton (July 20): Very abundant. It is scattered over all orchards in the infested territory.

Virginia P. J. Chapman (July 24): Moderately abundant in home orchards near Norfolk.

W. J. Schoene (July 24): The plum curculio has caused more damage to apples and peaches in the fruit sections than for many years. However, much of this will be removed in thinning the fruit.

North Carolina Z. P. Metcalf (July 21): Very abundant.

R. W. Leiby (July 23): Commercial peach orchards are suffering from curculio injury nearly or quite as bad as in 1921. The severe infestation of ripening peaches is due to a general neglect of orchards because of economic conditions in the

fruit industry during the past two years, making it difficult to pick up drops, and to mild winter, permitting survival of adult curculios.

- Georgia O. I. Snapp (July 19): Second-generation larvae caused much damage to the Elberta crop. Other varieties escaped second-brood attack. The infestation in the Georgia peach belt was heavier this year than at any time since 1921, and many complaints of wormy fruit were heard. Again the curculio is a serious problem in Georgia.
- Illinois W. P. Flint (July 22): The plum curculio is still moderately abundant and still found in almost as large numbers as at any time this season. Curculios from drop-peach cages have been emerging since June 25, with a peak on July 3, which will be about one month before Elberta harvest. Considerable feeding had been done when put in cages on peach trees.
- South Dakota H. C. Seyerin (July 12): There is very severe damage to plum every year, and this year is no exception.
- Missouri L. Haseman (July 22): Moderately abundant; pupation observed July 13 and the first adult observed July 22. Worms are still in plums.
- Nebraska M. H. Swenk (July 19): This insect is moderately abundant.
- Arkansas D. Isley (July 1): The plum curculio is very abundant.
- Louisiana W. E. Hinds (July 23): Very abundant.

SAY'S BLISTER BEETLE (*Pomphobaea sayi* Lec.)

- New York C. R. Crosby (June 20): Specimens on peach have been received from Greene County and on flowers from Ithaca.
- FUNGUS ANT (*Trachymyrmex septentrionalis obscurior seminole* Wheeler)
- Mississippi R. W. Harned (July 23): This insect has been reported to have removed lots of foliage from peach trees on a farm 7 miles south of Meridian. This is the first instance of injury of this sort that has come to our attention.

CHERRY

BLACK CHERRY APHID (*Myzus cerasi* Fab.)

- New York C. R. Crosby and assistants (July): The cherry aphid was very serious on sweet cherry in Dutchess County, where the crop was ruined in some orchards. It was also present in considerable numbers in Orange, Ulster, and Greene Counties.

Pennsylvania C. A. Thomas (July 20): In late May and early June this aphid was abundant on the terminal leaves of cultivated cherries which they curled and stunted.

Ohio E. W. Mendenhall (July 10): The young shoots and tender growth on sweet and sour cherry in Miami County are badly infested.

CHERRY MAGGOTS. (Rhagoletis spp.)

New York J. R. Crosby and assistants (July): The cherry maggots appear to be about normally abundant throughout the State.

Michigan R. H. Pettit (July 12): On June 21, R. cingulata Loew emerged at Grand Rapids, on the 25th at Hart, on the 27th at Traverse City, and four days later out on the Leelanau Peninsula. R. fausta O. S. emerged on the 19th at Gobles.

UGLY-NEST CATERPILLAR (Cacoecia cerasivorana Fitch)

New Hampshire P. R. Lowry (July 22): Quite common on choke cherry in the southeastern part of the State. Pupating began the latter half of July.

OBSOLETE BANDED STRAWBERRY LEAF ROLLER (Cacoecia obsoletana Wlk.)

Michigan R. H. Pettit (July 12): What appears to be Archips obsoletana Wlk., one of the strawberry leaf rollers, has recently appeared on cherries at Traverse City. The fruit has been attacked in many cases and the pulp eaten down to the pit. Pupae are now in the cages.

PLUM WEB-SPINNING SAWFLY (Neurotoma inconspicua Nort.)

Nebraska M. H. Swenk (June 15-July 15): This sawfly severely injured the foliage of some cherry trees in the yard of a correspondent at Exeter, Fillmore County, late in June.

PLUM

LESSER PEACH BORER (Sesia pictipes G. & R.)

South Dakota H. C. Severin (July 20): This insect is always a severe enemy of the plum tree in eastern South Dakota. This year is no exception.

RUSTY PLUM APHID (Hysteroncúra setariae Thos.)

Nebraska M. H. Swenk (June 15-July 15): During this entire period this aphid was troublesome on plums.

RASPBERRY

RASPBERRY FRUIT WORM (Byturus unicolor Say)

Michigan

R. H. Pettit (July 25): This insect has been found in the southwestern part of the State doing commercial damage. Samples have been sent in from Berrien and Van Buren Counties and reports of appreciable losses have been made.

OBSURE WEEVIL (Sciopithes obscurus Horn)

Washington

S. E. Crumb (June 25): S. obscurus, often accompanied by Brachyrhinus ovatus L. and B. sulcatus Fab., is causing severe injury in raspberry fields around Puyallup. I have observed several infestations in loganberry plants in the Montesano district.

A CURCULIONID (Gooderces melanothrix Kby.)

Washington

W. F. Baker (July 25): I have taken this insect in several raspberry fields in the vicinities of Puyallup and Sumner.

RASPBERRY CANE BORER (Cborea bimaculata Oliv.)

Ohio

E. W. Mendenhall (July 12): Young raspberry canes are affected at Brandt, Miami County.

ROSE STEM GIRDLER (Agrilus viridis L.)

Ohio

E. W. Mendenhall (July 2): In some of the raspberry plantations at Brandt the rose stem girdler is doing some damage and causing the tips to wilt.

RASPBERRY CANE MAGGOT (Pegomya rubivora Coq.)

Minnesota

A. H. Frick (July): I encountered one fairly severe infestation near Grand Rapids.

BLACKBERRY

ROSE LEAFHOPPER (Empoa rosae L.)

Washington

S. E. Crumb (June 25): A leafhopper, apparently E. rosae, is abundant on blackberry at Puyallup and has caused considerable injury to the older leaves.

GRAPE

ROSE CHAFER (Macroductylus subspinosus Fab.)

Massachusetts

A. I. Bourne (July 25): This insect has been very abundant.

It attacked crops other than grape and rose more than usual.

Ohio E. W. Mendenhall (July 16): Reported very bad in some of the sections of eastern Ohio, where it is doing considerable damage to grapes.

Michigan R. H. Pettit (July 12): The rose chafer has been worse than usual, perhaps, all over the State.

Nebraska M. H. Swenk (June 15-July 15): The last reports of injury were received from Lincoln County on June 17 and Custer County on June 23.

GRAPE LEAFHOPPER (Erythroneura comes Say).

Pennsylvania C. A. Thomas (July 20): Leafhoppers have not been important on the grapevines in southeastern Pennsylvania so far this season. Many vines can be found which show none of these insects and no results of their feeding.

Ohio T. H. Parks (July 12): The grape leafhopper is very abundant in many vineyards east of Cleveland in Ashtabula and Lake Counties. The infestation is heavier than for several years, some leaves already showing injury.

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians B. & McD.)

Arizona O. L. Barnes (July 24): There was severe injury to one small vineyard at Glendale as reported July 5.

GRAPE ROOT WORM (Fidia viticida Walsh)

Mississippi R. W. Harned (July 23): Specimens were collected on grapes at Stoneville on June 27. Medium injury was reported.

Nebraska M. H. Swenk (June 15-July 15): A report of serious injury to a vineyard came in late in June as far west as Frontier County.

GRAPE SAWFLY (Erythraspides pygmaea Say)

Mississippi R. W. Harned (July 23): Specimens of the grapevine sawfly were found abundant on grapes at Columbus on June 15.

CURRENT AND GOOSEBERRY

IMPORTED CURRENT WORM (Pteronidea ribesii Scop.)

New York C. R. Crosby and assistants (July): This insect was serious in the lower Hudson River Valley where not treated.

South Dakota H. C. Severin (July 12): This insect is causing more severe damage to currant and gooseberry than usual in eastern South Dakota.

CURRANT FRUIT FLY (Epochra canadensis Loew)

Washington S. E. Crumb (June 25): One small planting of about 60 gooseberry plants in Sumner was so heavily infested that it was difficult to find any uninfested fruits. In general, throughout the Puyallup Valley there seems to be only a light infestation.

CURRANT APHID (Myzus ribis L.)

New York C. R. Crosby and assistants (July): The currant aphid has been reported as seriously infesting currant in parts of Orange and Ulster Counties.

GOOSEBERRY WITCH-BROOM APHID (Myzus houghtonensis Troop)

Ohio E. W. Mendenhall (July 25): Work of Houghton's gooseberry aphid is quite noticeable on Houghton gooseberry bushes at New Carlisle.

Indiana J. J. Davis (July 22): Reported from Sheridan July 1.

PECAN

FALL WEBWORM (Hyphantria cunea Drury)

Missouri L. Haseman (July 22): Fall webworms began to attract attention the middle of July.

Louisiana W. E. Hinds (July 23): This insect is increasing in abundance and damaging pecan.

Mississippi R. W. Harned (July 23): Infestations have been more serious this year than for several years. Thousands of pecan and persimmon, as well as other trees, have been completely defoliated.

P. K. Harrison (June 24): The first specimens were collected April 16, and it is more abundant at Picayune than I have ever seen it before. It first began to attack persimmon, and now is very abundant on that plant and pecan.

PECAN NUT CASE BEARER (Acrobasis caryae Grote)

Louisiana W. E. Hinds (July 23): Very serious injury is being done to young pecan nuts throughout the State.

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

Mississippi R. W. Harned (July 23): Injured immature pecans have been received recently from Ocean Springs, Moss Point, Pascagoula, and Pass Christian. In each case the correspondents reported that the insects were causing their trees to shed many of their nuts.

PECAN SESIA (Scesia scitula Harr.)

Mississippi R. W. Harned (July 23): Rather severe injury to a pecan tree at Sherrard was reported on July 6.

A DASYLLID BEETLE (Scirtes tibialis Guer.)

Mississippi R. W. Harned (July 23): Beetles were reported as very abundant on pecan trees at Ocean Springs on May 22. Little if any injury had been caused.

PHYLLOXERA (Phylloxera spp.)

Louisiana W. E. Hinds (July 23): More complaints this year than usual of phylloxera and other gall-forming species on pecan, especially from southern Louisiana.

Mississippi R. W. Harned (July 23): Phylloxera galls continue to attract much attention on pecan trees in various sections of the State. Specimens have recently been received from Adams, Tippah, Bolivar, Harrison, and Pearl River Counties. P. devastatrix Perg. and P. notabilis Perg. seem to be the most abundant species.

GIANT APHID (Longistigma caryae Harr.)

Mississippi R. W. Harned (July 23): Aphids were collected on pecan trees at Holly Springs and Kewanee recently. The correspondent at Kewanee stated that only one limb of his pecan trees was infested, but that the aphids had completely defoliated that limb.

AN APHID (Monellia costalis Fab.)

Mississippi R. W. Harned (July 23): Aphids identified by A. L. Hamner were found abundant on pecan trees at Pascagoula on June 17, and at Wiggins on June 15. This species was also abundant on pecan trees at Lucedale on July 12. The correspondent at Lucedale stated that the trees have a varnished appearance due to the honeydew every year, but that apparently no damage is caused.

AN APHID (Myzocallis fumipennellus Fitch)

Mississippi R. W. Harned (July 23): Severe injury to pecan trees at Wiggins was reported on June 15 by J. P. Kislando.

CITRUS

MEDITERRANEAN FRUIT FLY (Ceratitis capitata Weid.)

Florida

Plant Quarantine and Control Administration (July 31): In addition to the counties reported last month, the fruit fly has been found in southern Duval County and in the eastern parts of Levy, Hernando, and Pasco Counties, respectively. The total number of infested properties (including town lots) is now about 1,000. No infested Florida fruit was reported as having been discovered at points outside that State during the month.

A poison bait spray is being applied at weekly intervals throughout the infested zones, that is, the area included within one mile of infested premises. Progress has been made in bringing about the total elimination of host fruits and vegetables in the infested zones and in making the protective zones host free for the summer. A most important part of the work under way is that which consists of the elimination of wild and escaped host fruits on uncultivated land.

No host fruits or vegetables were shipped from Florida during July, except a limited number of cars of host vegetables (largely peppers and eggplants) from those parts of the State outside infested and protective zones, and a few cars of oranges from cold storage.

AN ANT (Solenopsis saevissima richteri Forel)

Alabama

H. P. Loding (July 15): This ant has for several years done considerable damage to young satsuma orchards and nursery stock by girdling the trees just above the union of stock and graft, evidently to get the oozing sap.

GIRDLED CICADA (Tibicen cinctifera Uhl.)

Arizona

O. L. Barnes (July 24): This species is abundant near Phoenix this summer and doing damage to young citrus trees.

ORANGE THRIPS (Scirtothrips citri Moulton)

California

E. A. McGregor (July): The citrus thrips has been considerably more severe in central California this season than usual. Unprotected orchards will no doubt have a very considerable portion of their crop of oranges badly scarred.

BEET ARMYWORM (Laphygma exigua Hübner)

Arizona

O. L. Barnes (July 25): The beet armyworm has damaged young citrus seedlings in a nursery near Perryville.

TRUCK - CROP INSECTS

GARDEN WEBWORM (Loxostege similalis Guen.)

- Kansas J. W. McColloch (July 21): The garden webworm is occurring in outbreak numbers in many parts of the State. The State Board of Agriculture reports damage to alfalfa throughout southeastern Kansas.
- Arkansas D. Isley (July 1): Abundant in central and eastern Arkansas.
- Mississippi R. W. Harned (July 23): Specimens have been received during the past month from Beulah, Pace, Yazoo City, and Belzoni on cotton and alfalfa. Slight injury was reported in every case except at Belzoni, where the correspondent stated that the entire field of alfalfa was practically stripped.

ZEBRA CATERPILLAR (Mamestra picta Harr.)

- Maine C. R. Phipps (July 20): This insect is unusually abundant on clover, pea, strawberry, and raspberry.
- Massachusetts A. I. Bourne (July 25): More abundant than usual on cabbage, cauliflower, and allied garden crops. One case where the leaves of rhubarb were being riddled was reported.

SOUTHERN GREEN STINK BUG (Nezara viridula L.)

- Mississippi R. W. Harned (July 23): Serious injury to tomatoes at Escatawpa was reported on July 20.
- Louisiana W. E. Hinds (July 23): Appears to be increasing in abundance and damaging a variety of host plants over last year.

BLISTER BEETLES (Meloidae)

- South Dakota H. C. Severin (July 20): Several species of blister beetles are severely damaging alfalfa, potato, bean, pea, and caragana in many localities in central South Dakota.

MARGINED BLISTER BEETLE (Epicauta marginata Fab.)

- Connecticut R. B. Friend (July 23): More abundant than usual locally in Hamden, where it is attacking Swiss chard.

A BLISTER BEETLE (Epicauta sp.)

- North Dakota J. A. Munro (July 22): A blister beetle is reported to be causing damage to caragana hedges, beans, potatoes, and alfalfa in Ward County.
- Kansas J. W. McColloch (July 18): Injury to gardens by an undetermined blister beetle was reported from Morland.

STRIPED BLISTER BEETLE (Epicauta vittata Fab.)

Kansas J. W. McColloch (July 18): This beetle has caused considerable damage to gardens at Rexford and Delphos. gardens by an undetermined species.

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

Minnesota A. H. Frick (July 15): Very abundant in Polk County.

California A. C. Davis (July 18): Leaves of eggplant are perforated with holes. However, plants are too large for serious injury.

WAVY-STRIPED FLEA BEETLE (Phyllotreta sinuata Steph.)

Mississippi R. W. Harned (July 23): Beetles belonging to this species were reported as abundant on mustard plants at Tupelo on June 24.

STRIPED FLEA BEETLE (Phyllotreta vittata Fab.)

Wyoming H. L. Sweetman (July 17): A striped flea beetle, probably this species, destroyed seven or eight acres of field beans in Sheridan County.

FLEA BEETLES (Systema spp.)

Mississippi R. W. Harned (July 23): S. frontalis Fab. was sent in from Mayersville on June 15, with the following statement: "Very numerous on late plantings and seems to be causing the loss of stands in many sections. The beetles feed on both the top and under surfaces of the leaves." S. olonzeta Fab. was found eating the shuck around cotton squares at Pace on June 27 and was also abundant on mustard at Tupelo on June 24.

RED SPIDER (Tetranychus telarius L.)

Virginia P. J. Chapman (July 12): Snap beans of all ages were found badly infested in gardens at Norfolk during the recent dry spell. Soy beans are commonly infested and small areas in some fields show commercial damage. At Onley lima beans are infested, causing stunting and even death of the plants in small areas of a field under observation.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York C. R. Crosby and assistants (July): In parts of Suffolk County the Colorado potato beetle was so abundant that the usual sprayings were not sufficient to control the outbreak.

Pennsylvania T. L. Guyton (July 20): More plentiful this year than it has been for several years.

Ohio E. W. Mendenhall (July 10): Potato vines are eaten up in southwestern Ohio.

Minnesota A. G. Ruggles and assistants (July): This insect seems to be more prevalent than usual over the entire potato-growing sections. Reports of unusual abundance were received from Crow Wing, Clay, Hennepin, Renville, Chisago, Brown, Mower, and Blue Earth Counties.

POTATO FLEA BEETLE (Eotrix cucumeris Harr.)

New York C. R. Crosby and assistants (July): Apparently more abundant than last year in the lower Hudson River Valley and Long Island.

Pennsylvania C. A. Thomas (July 20): Beetles of the second generation are now very abundant in southeastern Pennsylvania. Early varieties are heavily infested. According to G. F. McLeod, Extension Entomologist, many fields of cobbler have died prematurely from their attacks. With the death of the early vines, the insects are migrating to late potato fields.

North Dakota J. A. Munro (July 22): This insect appears to be causing serious injury to potatoes at Fargo.

POTATO APHID (Illinoia solanifolii Ashm.)

New York C. R. Crosby and assistants (July): Late in June potato aphids began to increase on Long Island and by the end of the month had severely injured many plantings.

Pennsylvania C. A. Thomas (July 20): Potato aphids are very numerous in some fields, except where well sprayed. In other fields very few aphids can be found. Thus far parasites are not common.

POTATO LEAFHOPPER (Empoasca fabae LeB.)

Maine C. R. Phipps (July 20): Moderately abundant in Kennebec County.

New York C. R. Crosby and assistants (July): Considerable damage was done to potatoes during the first two weeks in July in Orange County and on Long Island.

Pennsylvania C. A. Thomas (July 20): Very common and injurious on potato leaves, especially on those fields which have not had a regular spray schedule.

- Illinois W. P. Flint (July 22): Very abundant.
- Minnesota A. G. Ruggles and assistants (July): The potato leafhopper became quite prevalent during July. It is reported as very abundant in Winona and Mower Counties and moderately abundant over practically the entire southern quarter of the State.
- South Dakota H. C. Severin (July 20): This insect is very abundant.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

- Indiana J. J. Davis (July 22): Destructive at Dyer; reported July 10.
- North Dakota J. A. Munro (July 22): Very abundant in gardens.
- Missouri L. Haseman (July 22): This insect is very abundant.
- Nebraska M. H. Swenk (July 19): Moderately abundant, the usual number of reports being received.

CABBAGE LOOPER (Autographa brassicae Riley)

- New York C. R. Crosby and assistants (July): This insect is much more numerous than usual in Ontario County and reports of damage have also been received from Monroe and Suffolk Counties.
- Missouri L. Haseman (July 22): Very abundant the last of July.

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

- New York C. R. Crosby and assistants (July): This insect has caused severe damage to radish and cabbage in Nassau County. In general, the cauliflower crop of Suffolk County does not seem to be suffering. It was also troublesome in Ontario County.
- North Carolina Z. P. Metcalf (July 21): Very abundant in the mountains.
- Minnesota A. H. Frick (July): A considerable number of radish maggots has been observed in Itasca County.

CABBAGE APHID (Brevicoryne brassicae L.)

- New York C. R. Crosby and assistants (July): During the last week in June the cabbage aphid put in its appearance on cauliflower on Long Island and by the middle of the month it had caused considerable trouble. It was also troublesome on cabbage in Ontario County.
- Indiana J. J. Davis (July 22): Abundant on cabbage at Bristol; reported July 11.

South Dakota H. C. Severin (July 12): More abundant than usual and is causing severe injury.

STRAWBERRY

WHITE GRUBS (Polyphylla spp.)

Washington W. W. Baker (June 25): There has been considerable damage to strawberry plants around Rochester and in Big Harbor by Polyphylla larvae. Some acreage was so badly damaged that it was plowed up last year and planted in grain.

STRAWBERRY LEAF ROLLER (Ancylis comotana Frol.)

Indiana J. J. Davis (July 22): Very abundant at LaFayette late in June and at Mishawaka July 3.

Washington W. W. Baker (June 25): A few of these larvae have been found on strawberry plants in the Grand Mount district. The injury this season has been slight.

A MOTH (Abiabia (Cnephasia) longana Haw.)

Oregon D. C. Mote (July 10): The larvae of this European moth were found feeding in the fruit of strawberry at Oregon City. Adults were reared and sent to Washington for determination. (Determined by Dr. A. Busck)

STRAWBERRY CROWN BORER (Tyloderma fragariae Riley)

Indiana J. J. Davis (July 22): Reported on July 2 as damaging strawberry at New Albany.

STRAWBERRY ROOT APHID (Aphis forbesi Weed)

Nebraska M. H. Swenk (June 15-July 15): Reported as troublesome on strawberry during the latter half of June.

LATE STRAWBERRY SLUG (Empria maculata Nort.)

Nebraska M. H. Swenk (June 15-July 15): The late strawberry slug was injurious to the leaves of strawberry plants late in June in Washington and Holt Counties.

A LEAF BEETLE (Timarcha intricata Hald.)

Washington W. W. Baker (June 25): Larvae have been found feeding in strawberry plants around Montesano and Grand Mound. They are not present in very large numbers.

PEPPER

PEPPER WEEVIL (Anthonomus euganii Cano)

Texas

R. K. Fletcher (July 18): Reported as practically destroying large patches of sweet peppers at Houston.

California

P. C. Ting (July 18): Four very light infestations in peppers have been found in Orange County, two at Irvine, and two at Talbert. As yet the weevils are not numerous enough to be of any commercial importance.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

California

A. C. Davis (June 27): These beetles are appearing in numbers from 1 to 5 per pepper plant and have riddled nearly every plant (7,000 plants per acre). They ate up many young plants, but those remaining are too old to be severely damaged.

P. C. Ting (July 18): The leaves of chili pepper are riddled by Systema taeniata Say and D. soror. Plants are large enough so that no commercial damage is being done.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Connecticut

E. P. Felt (July 24): There is a general and apparently widely scattered infestation in western Connecticut, since it has been taken at Stamford, New Canaan, Ridgefield, Wilton, Westport, Brookfield, and Washington. Most of the infestations observed are in small widely scattered bean patches and in many cases the infestation is limited to a few plants or groups of plants and they are apparently of very recent origin.

New York

E. P. Felt (July 24): The Mexican bean beetle has been taken at North Salem.

Weekly News Letter, N.Y. State College of Agr., July 22: Mexican bean beetle grubs were found on beans near Middletown, Orange County, this week.

Pennsylvania

T. L. Guyton (July 20): Very abundant in the vicinity of Harrisburg, and in fact in most of Pennsylvania, particularly in the southern half.

C. A. Thomas (July 20): Probably arrived in southeastern Pennsylvania in 1927; a few were found in 1928. It is abundant and doing damage in the following counties: Chester, Delaware, Philadelphia, Bucks, and Montgomery, and probably others. The late larval and pupal stages predominate now.

- Maryland E. N. Cory (July 24): Moderately abundant; between generations.
- Virginia P. J. Chapman (July 15): This insect has extended its range over last year. The early damage was probably more important than last year, but dry weather retarded its development in early July and at present it does not appear to be so important as at this time last year. At Walkerton a 375-acre lima bean planting is not so seriously infested as last year. Some 3,500 acres of lima beans are grown for canning near Cherriton and the report is that these plantings have not needed protection from the pest thus far this year.
- North Carolina C. H. Brannon (July 25): The bean beetle is now causing serious injury down to the very coast. Onslow, Carteret, New Hanover, Pasquotank, and Currituck Counties all report widespread injury.
- Georgia R. T. Daniel (July 20): While visiting in Washington County I found a number of beetles in the gardens, where they were doing about 50 per cent damage.
- O. I. Snapp (July 16): Lima beans in home gardens near Fort Valley are being ruined.
- Ohio E. W. Mendenhall (July 18): Reported quite bad in Fairfield County, and beans are totally destroyed at Dayton.
- Indiana R. F. Sazama (June 27): I believe this is the first time this insect has been found at Vincennes. Last year it had reached Washington, which is 20 miles east of here.
- Nebraska M. H. Swenk (July 19): Not present in June in western Nebraska, where it was present a year ago.
- Alabama J. M. Robinson (July 23): The Mexican bean beetle is very abundant at Auburn and Piedmont, and in northeastern Alabama. Stiretrus anchorago personatus Germ. was reported from West Blockton as feeding on the larvae.
- Mississippi R. W. Harned (July 23): Has caused more injury to beans in several counties in northeastern Mississippi this year than for several years. It has been reported from Benton County recently for the first time.
- Wyoming H. L. Sweetman (July 17): This insect is scarce.
- New Mexico J. R. Eyer (June 28): The Mexican bean beetle is very abundant throughout the lower Rio Grande Valley.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

- Ohio E. W. Mendenhall (July 2): Quite abundant on beans at Brandt.
- Mississippi R. W. Harned (July 23): Reported as moderately abundant on beans at Cruger on June 27.

LIMA BEAN VINE BORER (Monophtila pergratialis Hulst)

- Maryland E. N. Cory (July 24): Reported on July 9 from Salisbury.
- Mississippi R. W. Harned (July 23): Specimens were found seriously injuring lima beans at Meridian July 1.

A MOTH (Lepidoptera)

- Haiti R. C. Smith (July 2): We have observed for the first time a lepidopterous larva boring into the branches of several varieties of beans, beginning at the tips and working down. Severest damage was done to the common red beans of Haiti and a large bean called "pois majock." This damage stops growth and either stunts the plant or spoils the contour. The larvae also bore into the pods. The identity of this insect is not known.

CUCUMBERS AND MELONS

MELON APHID (Aphis gossypii Glov.)

- New York Weekly News Letter, N. Y. State College of Agr., July 22: Melon aphids are appearing in large numbers in some plantings of melons in Chautauqua County and are doing considerable injury.

PICKLE WORM (Diaphania nitidalis Stoll)

- Mississippi P. K. Harrison (July 6): This insect is doing severe damage to squash at Picayune and Carriere.
- R. W. Harned (July 23): Caused much injury this season throughout Mississippi to squash, canteloupe, and cucumber.
- Alabama J. M. Robinson (July 27): Canteloupe worms have about completed the destruction of the late July canteloupes in central Alabama.

SQUASH BORER (Melittia satyriniformis Hbn.)

- Missouri A. C. Burrell (July 24): About 95 per cent of the Hubbard squash in a garden near Jefferson City is ruined.

Mississippi R. W. Harned (July 23): Serious injury was reported on June 17 from Gulfport, on June 25 from Meridian, and on July 1 from Fondren.

Connecticut R. B. Friend (July 23): Winter squash appears more heavily infested than usual, and adults and eggs were abundant this month at Hamden.

SQUASH BEETLE (Epilachna borealis Fab.)

Mississippi R. W. Harned (July 23): Injury to squash was reported on June 26 and 27 from several properties in Vicksburg and on July 4 from Belzoni and Yazoo City. This species was also collected on squash at Picayune on July 6.

ONION

ONION THRIPS (Thrips tabaci L.)

New York C. R. Crosby and assistants (July): This insect put in its appearance on Long Island during the last week in June and by the first of July was attracting very considerable attention among the growers.

Virginia P. J. Chapman (July 10): Some cucumber fields near Norfolk became heavily infested with this thrips, resulting in a reduction in yield estimated at from 10 to 35 per cent of the crop. In one field of relatively late cucumbers the infestation was severe at the beginning of harvest and here the decrease in yield would reach 35 per cent.

Minnesota A. H. Frick (July): Considerable damage has been found in Itasca County.

ONION MAGGOT (Hylemyia antiqua Meig.)

Indiana J. J. Davis (July 22): Reported damaging onions at Culver, Helmer, and Winamac the last of June. Reports and observations to date, however, show decidedly less trouble than in 1928.

Michigan R. H. Pettit (July 12): The onion maggot is working in Michigan in many fields.

Minnesota A. H. Frick (July): Considerable numbers have been found in Itasca County.

North Dakota J. A. Munro (July 22): First damage reported July 13 and since that time reports have been received from a number of places in Rolette, Ramsey, Traill, and Cass Counties.

SWEET POTATO

TORTOISE BEETLES (Cassidinae)

- Indiana J. J. Davis (July 22): Larvae were reported attacking sweet potatoes at Shoals July 18.
- Louisiana W. E. Hinds (July 23): The two-striped sweet-potato beetle, Metriona bivittata Say, is common on leaves, but not requiring control measures as a rule.
- Mississippi R. W. Harned (July 23): Metriona bivittata Say was reported abundant on sweet potato plants at Philadelphia on June 30, at Lodi on July 6, and at Lena on July 11.

SWEET-POTATO SAWFLY (Schizocerus ebenus Nort.)

- North Carolina T. B. Mitchell (July 5): An outbreak would possibly have been serious in Currituck County but for dusting operations. A high percentage of parasitism by tachinids is indicated by a few specimens we bred out.
- Virginia P. J. Chapman (July 10): Damage necessitating control measures was observed in five sweet potato fields, one at Hickory and the others at Pungo. Many larvae were parasitised.

S O U T H E R N F I E L D - C R O P I N S E C T S

TOBACCO

TOBACCO FLEA BEETLE (Eutrix parvula Fab.)

- Connecticut W. Turner (July 17): Lower leaves of field tobacco are damaged severely and shade tobacco is slightly injured at Windsor.
- North Carolina Z.P. Metcalf (July 21): This insect is very abundant.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

- Louisiana W. E. Hinds (July 23): The third generation is now starting but is less abundant than usual at this time of year. Colonization of Trichogramma minutum Riley on second-generation eggs is now showing a very encouraging percentage of control.

FOREST AND SHADE - TREE INSECTS

PERIODICAL CICADA (Tibicina septendecim L.)

- West Virginia W. E. Rumsey (July 1): I did not see or hear any 17-year cicadas in the vicinity of Morgantown this year, but Prof. Strawsbaugh declares that he heard the 17-year cicada near Wheeling during June.
- Ohio T. H. Parks (July 8): I put the question of the periodical cicada to our county agent in Champaign County and he made inquiry and I think included the question in the county paper. He wrote recently that all of his inquiries were answered in the negative. On June 17 I put the same question to our entomologists. None had heard of any cicadas.
- Illinois W. P. Flint (July 26): In addition to the records sent in for the appearance of Brood III of the periodical cicada, I also have authentic records from Knoxville, Knox County, Macomb, McDonough County, and Canton, Fulton County.
- Missouri L. Haseman (July 22): A special survey run to determine the distribution of Brood III of the periodical cicada, due to appear in the northern part of Missouri this spring, showed it to be present in abundance or in scattering numbers in the following counties: Clark, Randolph, Putnam, Cedar, Holt, Harrison, Pike, Mercer, and Boone.

GREAT BASIN TENT CATERPILLAR (Malacosoma fragilis Stretch)

- California S. Lockwood (July 9): The Great Basin tent caterpillar has been so numerous around Mt. Shasta City this year that logging trains have experienced considerable difficulty and even trains on the main line of the Southern Pacific have been detained for two or three hours because of the worms on the rails. This Company's officials have equipped an engine with steam jets which they run ahead of their regular passenger and freight trains and blow the worms off the track in order not to delay the commercial trains.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)WESTERN TENT CATERPILLAR (M. pluvialis Dyar.)

- Washington W. W. Baker (June 25): The tent caterpillars seem to be more numerous this spring than at any time during the last several years. The devastation has been quite serious in most parts of western Washington. Many trees in home orchards have been completely defoliated as well as many shrubs and shade trees. There are numerous infestations in alder in woodland. It is not unusual to find as many as 15 nests in a small tree. Seattle and vicinity seem to be the most severely damaged. In

one instance the caterpillars were so numerous on the rails that a street car in Seattle was unable to stop and suffered a slight crash as a consequence.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Ohio E. W. Mendenhall (July 25): Damage is noticed at Dayton and Lancaster.

Indiana J. J. Davis (July 22): Bagworms were defoliating plum at Brazil, reported July 9, and shade trees at Evansville, reported July 12.

Mississippi R. W. Harned (July 23): Much attention has been attracted during the month in various sections of the State. Among the evergreens on which this insect has been found abundant are arborvitae, Cedrus deodara, juniper, and Colorado spruce.

WHITE-MARKED TUSsock MoTH (Hemerocampa leucostigma S. & A.)

Ohio T. H. Parks (July 26): The elm trees on the Fort Hayes Army Reservation grounds at Columbus have been partially defoliated. Trees in the remainder of the city have not suffered seriously.

Indiana J. J. Davis (July 22): Caterpillars were abundant on grape at Whiting July 12, and reported on July 17 from Marion, where the adults were issuing from cocoons.

Illinois W. P. Flint (July 22): Very abundant throughout the northern two-thirds of the State. First-brood larvae are now: practically all in cocoons. It has been at least 10 years since the insect was as generally abundant in Illinois.

SATIN MoTH (Stilpnotia salicis L.)

Maine C. R. Phipps (July 2): The satin moth larvae are abundant on poplars in Lewiston.

Rhode Island A. E. Stene (July 19): This insect is less abundant than last year.

Washington C. E. Doucette (June 24): Larvae have been very abundant this year in localities where this insect has become established. During June, 1928, a search for larvae in Puyallup revealed but three or four localities where any larvae were located and their feeding was hardly noticeable. This spring cottonwood and Lombardy poplars generally all over the city are almost completely defoliated. In 1928, in a park in Tacoma, which includes several varieties of poplars in its plantings, damage showed only on cottonwood. Several Lombardy poplars in this park were fed on but slightly. This year every poplar in the park is almost completely defoliated.

A SAWFLY (Fenusa dohrnii Tirsch.)

Washington

W. W. Baker (June 25): The alder saw fly is not quite so numerous as it was at this time last year. It has caused considerable defoliation in scattered localities on alder growing below elevations of 800 to 1,000 feet. The larvae of the first brood are nearly full-grown.

BOXELDER

BOXELDER APHID (Periphyllus negundinis Thos.)

North Dakota

C. N. Ainslie (July 1): The boxelder trees in Mandan are being severely injured by this aphid, many of them nearly dead from the attack. The aphids are being attacked by syrphid flies and several species of coccinellids, but not much impression has yet been made on the pest.

CAMPHOR

CAMPHOR THRIPS (Cryptothrips floridensis Watson)

Mississippi

R. W. Harned (July 23): Camphor leaves showing injury were recently received from several properties at Carriere, Pearl River County.

CATALPA

CATALPA SPHINX (Coratomia catalpae Boisd.)

Ohio

E. W. Mendenhall (July 3): The catalpa trees at Dayton and vicinity are infested. A report of July 2 says the catalpa trees at Brandt are badly infested.

Missouri

E. Haseman (July 22): Reported as very abundant at Joplin, but generally parasitised.

CATALPA MIDGE (Itonida catalpae Comst.)

Indiana

J. J. Davis (July 22): The catalpa midge is abundant at Edinburg as reported July 1 and at Elwood July 6.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Ohio

E. W. Mendenhall (July 12): Feeding has been observed in some of the elms at Dayton, and a very severe outbreak is under way at New Carlisle.

A LEAF BEETLE (Monocesta coryli Say)

Maryland

E. N. Cory (July 24): Reported from Keedysville on July 22.

A LEAF BEETLE (Calligrapha scalaris Lec.)

Nebraska

M. H. Swenk (June 15-July 15): During the third week in June reports came to us of serious damage to elm trees in the vicinity of Oxford. During the past spring this species was found abundantly in the vicinity of Tilden, but no reports of injury by the larvae were later received from that locality. Larvae of this species were destructive to elm at Chadron in August, 1914, which indicates a probable double-brooded species in this State.

WOOLLY ELM APHID (Eriosoma americana Riley)

Nebraska

M. H. Swenk (June 15-July 15): Troublesome during this period.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Wyoming

F. W. Boyd (July 12): Very common on elm in eastern Wyoming.

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

Kansas

J. W. McColloch (June 22): An infestation was found in a part of the town of Goodland.

Nebraska

M. H. Swenk (June 15-July 15): A new locality of infestation was reported late in June from Hebron, Thayer County.

Wyoming

H. L. Sweetman (July 5): All the trees in Cheyenne are infested and some are seriously infested.

HACKBERRY

HACKBERRY NIPPLE GALL (Pachypsylla celtidis mamma Riley)

Nebraska

M. H. Swenk (June 15-July 15): One of the most frequently reported galls during the period here covered was the hackberry nipple gall which became conspicuous in several localities early in July.

LINDEN

A MOTH (Chrysaclista linneella Clerck)

New York

A. Busck (July 29): This European moth was first discovered in the United States, near New York City, in September, 1928. Its larvae burrow in the woody parts of the linden tree.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Ohio E. W. Mendenhall (July 25): Quite destructive to the locust leaves in central and southwestern Ohio.

MAPLE

NORWAY MAPLE APHID (Periphyllus lyropictus Kess.)

New York Weekly News Letter, N. Y. State College of Agr., July 1: Plant lice have caused a considerable loss of foliage on the Norway maples in Suffolk County.

Pennsylvania C. A. Thomas (July 20): Norway maple aphids, which were so numerous in southeastern Pennsylvania in June, are now quite scarce.

Indiana J. J. Davis (July 22): Maple aphids were reported abundant from Pierceton, Edinburg, Morocco, Terre Haute, Salem, and Portland, from June 21 to July 1.

MAPLE NEPTICULA (Nepticula sericopeza Zell.)

Connecticut and New York E. P. Felt (July 24): The Norway maple leaf stalk borer is well established in Stamford, Conn., and specimens were received last year from New Hamburg and White Plains, N.Y. There are reports of probable infestations from other localities. It may cause 10 per cent of the leaves to drop in June. (Determined by Dr. A. Busck, who states that it is recorded as mining the young fruit of *Acer* in Europe.)

MAPLE BLADDER GALL (Phyllocoptes quadripes Shim.)

Indiana J. J. Davis (July 22): The maple bladder gall is abundant on maple at Wolcottville as reported July 15.

A LEAF-CUTTER BEE (Megachile brevis Say)

Ohio E. W. Mendenhall (July 18): The work of this leaf-cutter is quite prominent in Columbus, on maple and rose.

OAK TWIG PRUNER (Hypermallus villosus Fab.)

Ohio E. W. Mendenhall (July 10): The soft maples in one of the nurseries in Dayton are badly affected.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Indiana J. J. Davis (July 22): Noted at Tipton, New Richmond, Morocco, and Anderson.

Nebraska

M. H. Swenk (June 15-July 15): Unusually troublesome this year in central and western Nebraska. It was reported between June 17 and 27 as injuring soft maple trees and a few other plants at Valentine, Chappell, Ord, and Bridgeport.

OAK

OAK UGLY NEST TORTRICID (Cacoecia fervidana Clem.)

Massachusetts

J. V. Schaffner, jr. (July 25): This insect was unusually abundant in eastern Massachusetts, especially on Cape Cod. Feeding was confined to scrub oak and sprout-growth scarlet and black oaks.

A SCARABAEID BEETLE (Phytalus sp.)

Alabama

H. P. Loding (July 15): This insect is yearly becoming more plentiful. In June this year it was here in great numbers, especially on young oak branches.

A LEAF MINER (Lithocolletis conglomeratella Zell.)

Mississippi

R. W. Harned (July 23): Live oak leaves injured were received on May 30 from Hazelhurst and Natchez.

PINE

NAUTUCKET PINE MOTH (Rhyacionia frustrana Comst.)

Mississippi

R. W. Harned (July 23): Serious injury to young pine trees was reported from Winona on July 11.

FIR SAWFLY (Lophyrus abietis Harr.)

Nebraska

M. H. Swenk (June 15-July 15): A sawfly larva rather seriously injured a planting of western yellow pine in Kimball County during the last half of June.

A PINE SAWFLY (Neodiprion dyari Rohw.)

North Carolina

R. A. St. George (July 24): The pine sawfly which caused considerable injury to pines in this section (Pisgah National Forest) pupated around June 1. Many small trees were completely defoliated, while the needles on the lower branches of the larger, mature ones were eaten. This is the second consecutive season they have been abundant in this section.

A BARK BEETLE (Dendroctonus sp.)

Louisiana

W. E. Hinds (July 23): A species of Dendroctonus is reported as attacking between 10 and 15 per cent of the long-leaf pines on about 1,000 acres near DeRidder. Some trees have died recently.

SOUTHERN PINE BEETLE (Dendroctonus frontalis Zimm.)

North Carolina

R. A. St. George (July 24): Heavy broods overwintered, but they suddenly disappeared during the early spring, following an excess of rainfall. Field observations suggest that excess precipitation just as the adults were maturing, emerging, and attacking was largely responsible for this sudden check in numbers. During the latter part of June and the early part of July, the excess precipitation, accumulated since January 1, was greatly reduced, and therefore, the insect is being noted in increasing numbers lately in certain localities.

CHANGA (Scarteriscus vicinus Scud.)

North Carolina

R. A. St. George (July 24): This insect is quite active in the eastern part of the State, injuring young pine seedlings in the nursery of the State Department of Conservation and Development, near Raleigh. This is believed to be a new host record.

POPLAR

AN APHID (Chaitophorus populella G. & P.)

Wyoming

H. L. Sweetman (July 17): Very abundant at Laramie. The winged forms appeared the first week in July.

SPRUCE

SPRUCE BUDWORM (Harmoloba fumiferana Clem.)

North Dakota

J. A. Munro (July 22): Specimens were received from Jamestown and Aneta during the week of June 24. In general, this insect is scarce.

LONG SPRUCE CONE GALL (Chermes cooleyi Gill.)

Michigan

R. H. Pettit (July 25): A single infestation has been found near Detroit on blue spruce. Evidently this was from a western nursery.

WILLOW

GIANT APHID (Longistigma caryae Harr.)

Pennsylvania

C. A. Thomas (July 20): A number of large groups of this aphid have been found recently on the trunks and larger branches of glaucous or pussy willow, Salix discolor Muhl., growing in a yard near Kennett Square.

POPLAR MOCHA-STONE MOTH (Ichthyura inclusa Hbn.)

Ohio

E. W. Mendenhall (July 3): Willow stock in a nursery at Brookville is badly infested with larvae.

ELM SAWFLY (Cimbex americana Leach)

Ohio

E. W. Mendenhall (July 3): Outbreaks on willow in some sections of Montgomery County have been reported.

YELLOW-SPOTTED WILLOW SLUG (Pteronus ventralis Say)

Ohio

E. W. Mendenhall (July 24): Quite abundant on pussy willow in one of the nurseries in Springfield.

INSECTS ATTACKING GREENHOUSE
AND ORNAMENTAL PLANTS

A correction - The note on Mecas inornata Say attacking sunflower in Mississippi on page 205 of this volume of the Survey Bulletin should have read M. saturnina Lec. (Later determined by W. S. Fisher.)

RED SPIDER (Tetranychus telarius L.)

Maryland

E. N. Cory (July 24): On evergreens all over the State.

Ohio

E. W. Mendenhall (July 24): Quite abundant on willows in Springfield and on evergreens in one of the nurseries at Columbus.

Illinois

W. P. Flint (July 22): Injury is on the increase in central Illinois. Evergreens are suffering most and many other plants are being damaged.

Indiana

J. J. Davis (July 22): Reported as destructive from many points on the usual evergreen hosts and from Jasper, where it is attacking an unknown plant.

Nebraska

M. H. Swenk (June 15-July 15): Continued troublesome attacks on spruce and cedar during this entire period. The

complaints ranged from Douglas County west to Nance, north to Cuming, and south to Johnson Counties.

Kansas

J. W. McColloch (July 5): Causing damage to foliage of shade trees and shrubs at Ingalls.

PACIFIC RED SPIDER (Tetranychus pacificus McGregor)

California

E. A. McGregor (July): The annual outbreak is well under way. The almost unprecedented hot wave of late June and early July accelerated the development of this red spider, which is one of the major pests of central California, especially of deciduous fruit trees and ornamentals.

A LEAF BEETLE (Colaspis favosa Say)

Alabama

H. P. Loding (July 15): Many complaints of defoliation of ericaceous plants such as azaleas, and blueberries. In one nursery in Baldwin County the inspector noticed that they were attacking weigeliass and broad-leaved evergreens.

CHAIN-SPOTTED GEOMETER (Cingilia catenaria Drury)

Massachusetts

J. V. Schaffner, jr. (July 25): A severe local outbreak found in pasture land at Lancaster July 19. Though various plants and shrubs were present, sweet fern, Myrica asplenifolia L., seemed to be the favored food.

ASIATIC BEETLE (Anomala orientalis Waterh.)

Connecticut

R. B. Friend (July 23): The infestation is becoming more widely spread in New Haven and a new infestation was found this year in Bridgeport.

A MILLIPEDE (Scutigera immaculata Newp.)

Pennsylvania

C. A. Thomas (July 20): Symphylids have been very abundant and injurious in several greenhouses at Bustleton and Kennett Square during the past year. They have destroyed the roots of a number of plants, including Calla lilies, sweet peas, Centaurea seedlings, small aster plants, carnation cuttings, etc. In all cases the injury has been to the root system. Most of the damage has been in beds on the ground, but they have also entered pots and fed on the root ball, thus being transferred to raised beds, where they thrive as long as moisture is present.

ARBORVITAE

ARBORVITAE PLANT LOUSE (Lachnus thujaefalinus Del G.)

Ohio

E. W. Mendenhall (July 19): An infestation on arborvitae was found on a private estate in Dayton.

TERRAPIN SCALE (Lecanium nigrofasciatum Perg.)

Ohio E. W. Mendenhall (July 29): The terrapin scale is quite bad on arborvitae at Dayton and vicinity.

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

Ohio E. W. Mendenhall (July 12): Found on arborvitae trees in nurseries in Clark, Montgomery, and Hamilton Counties.

ASTERS

APHIDS (Aphidae)

Ohio E. W. Mendenhall (July 20): Root aphids, Anuraphis maidi-radicis Forbes and Trama erigeronensis Thos., are quite bad on aster roots, causing them to wilt and die.

Nebraska M. H. Swenk (June 15-July 15): The aster root aphid, Aphis middletonii Thos., was reported troublesome during the latter half of June.

CANNA

LESSER CANNA LEAF ROLLER (Geshna cannalis Quaint.)

Mississippi R. W. Harned (July 23): Quite abundant throughout Mississippi during the past few weeks. In many instances cannas were completely ruined.

LARGER CANNA LEAF ROLLER (Calpodex ethlius Cram.)

Mississippi R. W. Harned (July 23): Quite abundant throughout the State during the past few weeks. In many cases cannas were completely destroyed.

CHRYSANTHEMUM

CHRYSANTHEMUM GALL MIDGE (Microthripsomyia hypogaea Loew)

Mississippi R. W. Harned (July 23): Specimens were found on chrysanthemum at Greenwood on June 28. The infestation was cleaned up immediately.

CREPE MYRTLE

A FULGORID (Ormenis septentrionis Spin.)

Alabama H. P. Loding (July 15): A fulgorid has been doing con-

siderable damage to young growth of crepe myrtle and other ornamentals in Mobile. They have come in great numbers. I counted as many as 50 adults on a single crepe myrtle branch 3 feet long. An interesting thing is that English sparrows were eating them by the thousands.

HOLLY

HOLLY FIREWORM (Rhopobota naevana Kearfoot)

Washington

W. W. Baker (July 25): This insect seems to be general in western Washington and is very serious in several localities. Some trees have been seen with a larva in every young shoot.

IRIS

IRIS BORER (Mocronoctua onusta Grote)

Ohio

E. W. Mendenhall (July 16): Damage in Montgomery and Greene Counties is very severe.

New Hampshire

P. R. Lowry (July 22): Plants badly infested in East Kingston, Durham, and Dover as reported July 16.

IVY

EIGHT-SPOTTED FORESTER (Alypia octomaculata Fab.)

Massachusetts

J. V. Schaffner, jr. (July 22): There are severe local outbreaks in the suburbs of Boston. Boston ivy on the brick walls of a large manufacturing plant was fed on severely. The sections of vines on the walls of the third story and around some of the windows of the first and second stories were entirely stripped of foliage. Woodbine on the walls of one of the buildings of Harvard University was defoliated.

LILAC

LILAC LEAF MINER (Gracilaria syringella Fab.)

Washington

C. F. Doucette (June 25): Larvae of the first brood appear to be practically full-grown. It appears that some unknown factor has destroyed about 75 per cent of the larvae of this brood.

NARCISSUS

NARCISSUS BULB FLY (Merodon equestris Fab.)

Washington

C. F. Doucette (June 25): The first adults were observed in the fields around Sumner on May 13. None have been observed flying since June 19. The flies appeared to be about normal in abundance.

BULB FLIES (Eumerus spp.)

Washington

C. F. Doucette (June 25): Adults are at the present time scarce in the narcissus fields, indicating that the first-brood flies have practically disappeared. The second brood of adults is expected to be at its peak toward the end of July.

BULB MITE (Tarsonemus approximatus narcissi Ewing)

Washington

C. F. Doucette (June 25): Infestations have been found in four plantings of narcissus in western Washington this spring.

PRIVET

A PYRALID (Diaphania quadristigmalis Guen.)

Mississippi

R. W. Harned (July 23): On June 6 a correspondent at Verona informed us that an insect had caused serious injury to a privet hedge. (Determined by S. Schaus.)

SUNFLOWER

A LEAF BEETLE (Nodonota clypealis Horn)

Mississippi

R. W. Harned (July 9): On June 10 a correspondent at Carrollton mailed to us a number of flea beetles that he stated were eating holes in the leaves of sunflower.

TAMARISK

TAMARISK SCALE (Chionaspis etrusca Leon.)

Arizona

O. L. Barnes (July 24): Tamarisk scale is generally abundant on tamarisk trees in the vicinity of Phoenix. Although we receive many reports of abundance of this scale, and requests for aid in control, only a small percentage of the total infested trees have been reported. The two-stabbed ladybird beetle is usually abundant where the infestation is heavy.

VIOLETS

VIOLET SAWFLY (Emphytina canadensis Kby.)

Washington

W. W. Baker (June 25): A heavy infestation was observed on violets and pansies in Aberdeen.

WISTERIA

A LONG-HORNED BEETLE (Liorus crassulus Lec.)

Nebraska

M. H. Swenk (June 15-July 15): Larvae of L. crassulus, which is ordinarily regarded as a borer of the hackberry, were reported on wisteria about mid-June.

YEW

A MOTH (Batodes angustionana Haw.)

Canada

A. Busck (July): This European moth was first collected in North America at Victoria, British Columbia, September 18, 1928. It was reared from larvae found on yew (Taxus baccata).

I N S E C T S A T T A C K I N G M A N A N D

D O M E S T I C A N I M A L S

MAN

MOSQUITOES (Culicidae)

New Hampshire

P. R. Lowry (July 22): Aedes sollicitans Wlk. is much less abundant than last year in the coast towns owing to the dry season.

Louisiana

W. E. Hinds (July 23): Anopheline mosquitoes appear to be more abundant than usual at this season of the year and cases of malaria are very much more common at New Orleans and at Baton Rouge than they have been for several seasons.

Haiti

R. C. Smith (June 15-25): I have never seen so many mosquitoes (Aedes taeniorhynchus Wied.) in both quiet and running waters as occurred in the Hatte Lathan district the latter part of June. The adults are day biters and made working in that region almost impossible. The clumping of great numbers of larvae into black masses and the habit of many larvae holding to grass blades in running water were new observations to me.

FLEAS (Ctenocephalus spp.)

General

F. C. Bishopp (July 29): Many reports of house and yard infestations by C. felis Bouche and C. canis Curt. have been received during July. These have come from the following States: Pennsylvania, Maryland, Virginia, New York, New Jersey, Connecticut, Massachusetts, Rhode Island, Ohio, Illinois, and Iowa.

CHIGGERS (Trombicula irritans Riley)

General

F. C. Bishopp (July 29): Several reports of severe annoyance from chiggers have been received from the Central States, particularly Ohio, Illinois, and Missouri. About the usual number of complaints have come in from various southern states.

Ohio

E. W. Mendenhall (July 16): Chiggers are very troublesome to people in Montgomery County.

Indiana

J. J. Davis (July 22): Reported abundant in lawns at Terre Haute July 16.

Missouri

L. Haseman (July 22): Beginning to attract serious attention July 20.

SADDLE-BACK CATERPILLAR (Sibine stimulea Clem.)

Mississippi

R. W. Harned (July 7): On June 17 a citizen of Natchez handed a specimen to W. L. Gray with the statement: "It occurred on flowering bush, stung my wife and caused fever."

CATTLE

COMMON CATTLE GRUB (Hypoderma lineatum DeVill.)

Vermont

J. L. Webb and H. S. Peters (July 6): Out of 230 larvae extracted near Burlington, three of this species were found. This is an unusually late occurrence of this species in this locality.

NORTHERN CATTLE GRUB (Hypoderma bovis DeG.)

New York

J. L. Webb and H. S. Peters (July 15): Practically all of the grubs had dropped from the backs of the cattle in the Plattsburg and Herkimer districts by this date. This is from four to six weeks earlier than in 1928.

HORN FLY (Haematobia irritans L.)

North Dakota

W. G. Bruce (June 5-July 3): The horn fly was very much

in evidence around Lisbon and east to Wahpeton. An average of 500 per animal was estimated. They were found to be very numerous at Hamilton on July 3, there being from 10 to 12 per animal.

STABLE FLY (Stomoxys calcitrans L.)

Ohio

F. C. Bishopp (July 28): Stable flies were reported to be unusually abundant and annoying to dogs in a large kennel at Wickliffe on July 17.

North Dakota

W. G. Bruce (June 5-8): Stable flies were noted to be abundant around Lisbon and Wahpeton. From 10 to 15 flies were found on many animals. The flies were not so noticeable around Gardner, Page, Binford, and Cooperstown.

BLACK BLOWFLY (Phormia regina Meig.)

Nebraska

M. H. Swenk (June 15-July 15): A Dundy County correspondent on June 19 reported that after dehorning a herd too late, his cattle were seriously bothered by the maggots of a blowfly, probably this species.

HORSES

HORSE FLIES (Tabanidae)

Missouri

L. Haseman (July 22): Horse flies are more abundant than I have ever seen them. Two species of greenheads, the large black horse fly, the medium sized brown species, and one species of deer fly, have been especially abundant, no doubt owing to wet spring and favorable breeding weather. These flies have attracted special attention in central Missouri during July.

NOSE BOTFLY (Gastrophilus haemorrhoidalis L.)

North Dakota

J. A. Munro (July 22): The nose botfly put in its appearance during the last two weeks in the Red River Valley.

POULTRY

TURKEY GNAT (Simulium meridionale Riley)

Mississippi

R. W. Harned (June 25): Specimens sent in on June 18. These gnats occurred in large numbers in Bolivar, Washington, Sunflower, and Coahoma Counties. Chickens were bothered but no deaths had been reported.

FOWL TICK (Argas miniatus Koch)

California

D. C. Parman (July 18): Fowl ticks were found in limited numbers in many places in the Coachella Valley.

STICKTIGHT FLEA (Echidnophaga gallinacea Westw.)

California

D. C. Parman (July 18): These fleas have been reported from one or more places to have been bad at times on young chickens.

H O U S E H O L D I N S E C T S

ARGENTINE ANT (Iridomyrmex humilis Mayr)

Mississippi

R. W. Harned (July 23): New infestations have been recently discovered in the following places: Cruger, Thomas-town, Fearns Springs, Vaughan, and 12 miles northwest of Clinton.

TERMITES (Reticulitermes spp.)

Ohio

T. H. Parks (July 26): More complaints than usual have reached us about damage.

Indiana

J. J. Davis (July 22): Reports of damage from LaFayette, Elkhart, Mulberry, and Liberty have been received recently.

Kansas

J. W. McColloch (July 21): Injury is bad in many houses and buildings in Hill City. Dwellings have also been damaged in Jarbalo and Baldwin. An office building is infested at Salina and a grain elevator has been damaged at Pleasanton. At Pittsburg much injury has been done to electric light poles.

Mississippi

R. W. Harned (July 23): Scores of complaints have been received by the State Plant Board during the past few days and home owners in all parts of Mississippi are being advised to take steps to prevent further loss.

CARPENTER BEE (Xylocopa virginica Drury)

Kansas

J. W. McColloch (July 16): Carpenter bees are proving a serious pest to electric light poles and cross-arms of the Kansas Gas and Electric Company at Pittsburg.

